

## CLAIMS

What is claimed is:

1. Apparatus for automatically providing electrical voltage output in three different magnitudes responsive to three ranges of source voltage values, comprising:

5 a transformer including first and second primary windings and a secondary winding;

a voltage sensor interconnected with the source voltage and energized to provide a first signal on the source voltage being within the range 90-130 VAC, a second signal when the source voltage is within the range 90-108 VAC, a third signal when the source voltage is within the range 108-116 VAC, a fourth signal  
10 when the source voltage is within 116-130 VAC, and a fifth signal when the source voltage is outside the range 90-130 VAC;

an in-range control is actuated by each of the first, second, third and fourth signals to energize a first relay having contacts that interconnect the source voltage with the transformer and the in-range control is actuated by the fifth signal  
15 to deenergize the first relay disconnecting the source voltage from the transformer;

the voltage sensor second signal is connected to a boost control and a high-low control energizing second and third relays closing contacts that interconnect the primary windings in parallel providing maximum transformer

20 output added to the source voltage;

the voltage sensor third signal is connected to the boost control and high-low boost energizing the second relay to close contacts interconnecting source voltage to the transformer primary and dropping out the third relay to connect the primary windings in series providing a low boost to the source

25 voltage; and

the voltage sensor fourth signal also acts on the boost control to drop out the second relay which drops out the third relay and provides a direct connection between the source voltage and the apparatus output.

2. Apparatus as in claim 1, in which a power-on indicator is energized to light when the first relay is energized.

3. Apparatus as in claim 1, in which a boost indicator is energized to light when the second relay is energized.

4. Apparatus interconnecting a source voltage and an output voltage to an RV vehicle and automatically supplying two levels of boost across output voltage terminals on the source voltage dropping below first and second prescribed value ranges, comprising:

5 a transformer having a secondary winding providing output voltage and first and second primary windings having terminals enabling selective series and parallel interconnection;

means responsive to source voltage values for selectively  
interconnecting the terminals of the primary windings in series responsive to a  
10 first source voltage range and in parallel responsive to a second source range to  
effect corresponding levels of boost voltage to the output voltage; and  
means responsive to a third source voltage range for directly  
connecting source voltage to the output voltage terminals.

5. Apparatus as in claim 4, means responsive to High, Neutral and  
Ground source lines to light a warning light if the Ground line is disconnected,  
High and Neutral lines are interchanged, or High and Ground lines are  
interchanged.